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ABSTRACT

Library effectiveness--in particular, user satisfaction--is difficult to measure because it is a vague, subjective concept that is different for every person who enters the library. Library assessment traditionally has been measured by: (1) how well it has been meeting its stated goals and objectives; (2) the library processes, which include services offered to patrons; and (3) the structural properties of the library, such as the facilities, collection, and staff. However, these types of measurement evaluation criteria have ignored an important source of measurement, the library user. If the level of user satisfaction is low, then library effectiveness has not been achieved, no matter what other types of measurement criteria have been used. This particular study examines the effectiveness of the Packard Library at the Columbus College of Art & Design from the user's point of view. Questionnaires were distributed asking students to respond to questions on the library staff, hours, facilities, and collection. Demographic data were also collected, including information on the students' class rank, major, and frequency of library use. After the data were analyzed however, no significant differences in satisfaction between demographic groups appeared. Although the analysis revealed responses that were fairly neutral on many of the questions, user needs were clarified and can now be used in the library's planning processes. A copy of the student questionnaire is appended. (Contains 20 references.) (Author/ALF)

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USER SATISFACTION AT THE COLUMBUS COLLEGE OF ART & DESIGN: A MEASURE OF LIBRARY EFFECTIVENESS

A Master's Research Paper submitted to the
Kent State University School of Library Science
in partial fulfillment of the requirements
for the degree Master of Library Science

by

Elizabeth Strautz

June, 1991

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ABSTRACT

Determining the effectiveness of a library is essential. The information gained from this process helps the library prove its accountability, make decisions regarding library services, make resources allocations, and in general, better meet the needs of its users. Library effectiveness and particularly, user satisfaction, is difficult to measure. It is a vague, subjective concept that is different for every person who enters the library. Library assessment traditionally has been measured by: 1) how well it has been meeting its stated goals and objectives, 2) the library processes, which include services offered to patrons, and 3) the structural properties of the library, such as the facilities, collection, and staff. However, these types of evaluation criteria have ignored an important source of measurement, the library user. If the level of user satisfaction is low, then library effectiveness has not been achieved, no matter what other types of measurement criteria have been used. This particular study examines the effectiveness of the Packard Library at the Columbus College of Art & Design, from the user's point of view. Questionnaires were distributed asking students to respond to questions on various aspects of the library. These included questions on the staff, hours, facilities, and collection. Demographic data was also collected, including information on the students' class rank, major, and frequency of library use. This demographic data was obtained to see if any significant differences in user satisfaction between the groups existed. After the data was analyzed however, no significant differences between demographic groups appeared. Although the analysis revealed responses that were fairly neutral on many of the questions, the study produced a clearer picture of user satisfaction in the library. User needs were clarified and can now be used in the library's planning processes.

Master's Research Paper by

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INTRODUCTION

Library management, as both a process and an institution, has undergone great transformations in recent times. Leadership styles have changed, staff and patron expectations have grown, and library administrators have had to adapt to these increasing complexities of the modern library. Another management change that has been occurring has been in the area of library assessment. Performance or output measurement has been utilized much more frequently in libraries for a number of reasons. Libraries have increased both in size and in the number of services that are being provided. Performance measurement has been seen as one way to gather data that will aid in this increasingly complex administrative decision-making. As funding has become more difficult to obtain, libraries have had to become more accountable in order to remain in competition for resources. So performance measurement and program evaluation is often being used to illustrate libraries' accountability.[1]

Measuring the performance of a library can also improve organizational effectiveness by helping during the library's planning processes. Performance measures are "self-diagnostic tools that can enable librarians (and others) to evaluate the degree to which objectives are accomplished and thus provide the feedback for the library's planning activities by a) documenting improvements in the effectiveness and efficiency of library activities, and b) suggesting areas where library services can be improved."[2] Libraries and librarians must be responsive to the needs of their users and their

success or failure at meeting these needs. This responsiveness must be continual and must also be made part of the total philosophy of the library.

Effectiveness however, is both difficult to define and difficult to measure. Libraries conducting self-studies have not been consistent in what they choose as their criteria of assessment. When libraries have measured their effectiveness, they have typically taken one of three approaches, as defined by Rosemary and Paul DuMont.[3] One common assessment method is the goal approach. In this approach, libraries look to their objectives or mission statements to see whether or not they have fulfilled these objectives. One major drawback to this assessment technique is that libraries' mission statements are often philosophical in nature, with standards that are too imprecise to be of any help.

The second method of effectiveness assessment is to measure library processes. This focuses on the examination of circulation records, acquisitions, reference activities, and other services offered to patrons. This method concentrates on statistics and a danger is that quantity often serves as a replacement for quality. Card-catalog use and reference accuracy are relatively easy to measure, so measurement for measurement's sake can be a trap. "Quantity measures are used in many situations as a surrogate for assessing the impact of service."[4] Service, which is much more difficult to measure, but is just as vital, can easily be ignored.

The third approach to measuring library effectiveness described by the DuMonts, measures the structural properties of the library. The structure of the library includes facilities, equipment, staff, and the collection. This type of data is also easily obtained and is quite measurable. The professionals need only standardized book lists and other such resources to be used as comparisons to the library structure being examined. This can be a dangerous view because it assumes that more is always better.[5] This is not always the case.

F.W. Lancaster also divides evaluation criteria into groups, similar to the DuMonts. He looks at inputs, outputs, and outcomes.[6] What Lancaster describes as inputs can be compared to the DuMonts structure, consisting of the library's collection and other resources. Lancaster defines services provided, such as literature searches and document delivery activities, as outputs, which can be compared to the DuMont's processes. Both inputs and outputs are tangible and are criteria that are easily quantified.

However, the evaluation criteria that have been described and used in countless self-studies, have ignored an important source of measurement. As mentioned before, quantity measures have often been used in place of quality measures. While it is important to know how many books have circulated and if there is enough equipment for users, nothing can replace the usefulness of knowledge gained by studies of user satisfaction.

Along with inputs and outputs, Lancaster describes a third set of

evaluative criteria; outcomes. Library outcomes often relate to long-term objectives and are often "rather intangible and, therefore, not easily converted into concrete evaluation."[7] He also states that it is virtually impossible to measure the degree to which these types of objectives are achieved. It is suggested that outcomes be abandoned as direct criteria for the evaluation of libraries.

User satisfaction can be considered one such outcome. It is true that it is a vague and subjective concept. Service quality is elusive and difficult to measure, and the library user's perceptions of service quality are of an affective and emotional nature. These perceptions are also continually changing over time. Service, as a product, has distinct characteristics. It is produced at the instant of delivery and cannot be centrally produced, inspected, and stockpiled. A sample of service cannot be exhibited in advance and it cannot be passed on to a third party. Service cannot be recalled once it is performed and the delivery of service usually involves human interaction. The patron receiving the service has nothing tangible and therefore, the value of the service depends upon the patron's personal experience. Lastly, the receiver's expectations of service are integral to his or her satisfaction with the outcome.[8] This last aspect of service has particular importance to this present study. The study concentrates on the user's needs and the user's perceptions of the total service quality at the Packard Library at the Columbus College of Art & Design in Columbus, Ohio. Instead of looking towards the traditional areas of services and facilities, this study has looked towards the field of marketing for evaluation directives. Marketing, a business activity,

can also be used to market services. Many of libraries' functions are similar to those found in businesses, such as financial, production, personnel, and purchasing functions.[9] Libraries also have products to "sell" like services and ideas, and consumers to satisfy. The focus in marketing is on creating what the customer needs, not on what the organization is offering. "Marketing is that function of the organization that can keep in constant touch with the organization's consumers, read their needs, develop "products" that meet these needs, and build a program of communications to express the organization's purposes."[10]

While service quality is subjective, abstract, and specific to particular environments, it can be measured. Service is a matter of determining the perceptions and needs the library user in a systematic way, and then incorporating this knowledge into the library's planning and organizational processes.

The study of this area has importance for the library field as a whole and also for the particular library that is the focus of this research. The amount and type of information libraries have to contend with is increasing tremendously and they are offering more services than ever before. Yet this growth has also brought with it higher frustration and lower efficiency on the part of both the patron and librarian. No matter how much evaluation is done by the library and how effective the library judges itself to be, if the patron is not satisfied with the service quality, then success has not been achieved.

There are no set standards for library effectiveness, opinions vary from library to library, individual to individual. There is also no consensus on whose perspective should be taken, the patron's or the librarian's. This particular study focuses on the user and on his or her needs. It is important to examine the library and its offerings from without to determine if the traditional services of library science are functioning in the real world.

OBJECTIVES/RESEARCH QUESTIONS

This research is an attempt to determine the current level of the service quality in the Packard Library at the Columbus College of Art & Design. The college has approximately 1,200 students, both full and part-time. It is a private, undergraduate institution. The library gets used quite heavily, with an average of four hundred patrons per day. Use is high and demands for service are also high. There are five full-time professional staff members, 2 part-time professionals, and student workers. Because of the high volume of use, the service quality at this particular library sometimes suffers. This research is intended to assess the students' perceptions of the service and give its staff members valuable data on which to base future decisions and recommendations for improvement.

This study is designed to answer two major questions. 1) What is the current level of service quality in the library, as perceived by the students of the Columbus College of Art & Design? and 2) What is the relationship between current perceived service quality and the students': a)rank?, b) major area of study?, and c) frequency of library use? For example, are sophomores happier with the service than juniors? or, are photography majors not being provided adequate services? or, how do students who use the library only once a semester view the library's services?

The student's rank will either be freshman, sophomore, junior, senior, or none of the above (some students are part-time, non-degree students). The Columbus College of Art & Design offers undergraduate degrees in the following areas of study: fine arts, illustration, photography, industrial design, interior design, advertising design, retail advertising, and fashion design. The third variable is the frequency of library use. Students were asked if they use the library: daily, twice a week, once a week, twice a month, once a month, once a semester, or never.

LITERATURE REVIEW

Library effectiveness is an area about which much has been written. The literature review conducted for this particular study has concentrated primarily on literature that has been written since 1980. Even with this cut-off date, the amount of information is great. An excellent

source for literature written before this time is found in Rosemary and Paul DuMont's work, "Measuring Library Effectiveness: A Review and an Assessment."[11] This work contains an exploration of the literature up until 1979. Four major areas of the literature are covered; definitions of library effectiveness, library effectiveness criteria, effectiveness-measurement problems, and a summary and synthesis which explores a multidimensional scheme for measuring effectiveness.

A second article written by Rosemary Ruhig DuMont, " A Conceptual Basis for Library Effectiveness," brings forth the complexity that surrounds this whole field.[12] Effectiveness can be the achievement of goals, the efficient use of resources, personnel satisfaction, or user satisfaction.[13] There is not one single criterion that can be used for appraisment. To try to combat these problems, DuMont suggests the development of a systematic process to judge effectiveness. This systems model must be specific to each library, for no general model of library effectiveness is appropriate to all. The DuMonts explore this concept further in the paper "Assessing the Effectiveness of Library Service."[14] It is recognized that there is no consensus on what criteria should be examined, who should establish the criteria, and how the criteria should be used in evaluating effectiveness. However the library is assessed, by its goals, processes, or structures, it must be an ongoing, proactive measurement.

Library Performance, Accountability, and Responsiveness is a collection of essays written by leaders in this field.[15] There are contributions by notable authors in this area such as Mary Jo Lynch,

Ellen Altman, Charles C. Curran, and others. They cover subjects such as performance, measures and accountability, and how to incorporate these issues into staff development and the planing process.

Another collection of papers, Library Effectiveness: A State of the Art, was produced from the 1980 ALA Preconference of the same name.[16] These papers cover all types of library effectiveness, from materials availability to the effectiveness of automated interlibrary loans. A particularly relevant article by Betty Sell, "An Evaluative, Holistic, and User-Oriented Approach to Assessing and Monitoring Effectiveness of the Academic Library in its Setting," details her study conducted at Catawba College.[17] The holistic approach of this survey maintains that the effectiveness of libraries is primarily and directly related to the intended users. The users are also best able to judge the importance of each service dimension for their personal goals. The patrons of an academic library are informed and educated, and are fully equipped to evaluate. She reminds the reader that "it should be remembered that the actual and potential users are already evaluating the library - every time they decide whether to approach the library or not, in terms of a potential use.[18]

George D'Elia is another prominant name in the area of library effectiveness. The ALA Preconference collection just mentioned contains an article by D'Elia that studies user satisfaction. In his, "User Satisfaction as a Measure of Public Library Performance,"[19] he defines user satisfaction as the "state of mind experienced by a library user as a result of his interaction with the library or library service."[20]

This particular study had two criterion variables; user satisfaction and a user grade. The study found that the determinants of user satisfaction were not well-articulated. User satisfaction was found to be an affective and non-discriminating reaction. However, the user grade that patrons were asked to give produced a much clearer picture of their opinions of library performance, for the grade produced more cognitive, discriminating reactions. Therefore, D'Elia puts forth that the user grade should be seen as being preferable to user satisfaction as a measure of public library performance.

George D'Elia explores a specific library service in his article, "Materials Availability Fill Rates - Useful Measures of Library Performance?"[21] In this study, conducted for the Saint Paul Public Library System, he finds that materials availability fill rates are not a valid assessment of performance. This type of performance measure creates problems because fill rate data measures not only library performance, but also measures patron performance and success in the library. A third account by D'Elia and Sandra Walsh, "User Satisfaction with Library Service - A Measure of Public Library Performance," discusses a study they conducted which focused on user satisfaction.[22] They describe uses user satisfaction data has in the library. It can both describe the level of library performance and delineate the strengths and weaknesses of specific services within the library. User satisfaction is also a behavioral response which has an affect on future behavior, such as future library use. However, the survey results were unsatisfactory. Especially unsatisfactory was the lack of relationship between the patron's evaluation and use of the library. It turned out

that the patrons used the library regardless of how they viewed the quality. This points out once again the enigmatic nature and complexity of user behavior.

Ronald R. Powell has written two literature and research reviews that were pertinent to the present study. The Relationship of Library User Studies to Performance Measures: A Review of the Literature provides an exhaustive overview of user studies, library performance measures, and an integration of these two techniques.[23] He states that the library's ultimate product is performance or effectiveness and libraries must be accountable for this effectiveness. His "Reference Effectiveness: A Review of Research," focuses specifically on this one area of library service.[24] This service has traditionally been a difficult one to measure because of the various definitions of effectiveness and the variety of analyses techniques that have been used.

There are a number of manuals available to the help the library undertake a self-study of effectiveness. The standard manual seems to be Douglas L. Zweizig's Output Measures for Public Libraries: A Manual of Standardized Procedures.[25] The manual provides guidance on collecting, analyzing, and interpreting data on services such as materials use, materials access, and reference services. It provides blank forms for the librarian to use and allows for the measurement of objective, quantitative data. Mary Cronin describes historical and future trends in evaluation in her manual, Performance Measurement for Public Services in Academic and Research Libraries.[26] She also

provides a model of performance measurement for the public services and programs offered by libraries.

A third self-help manual available to librarians is Paul B. Kantor's Objective Performance Measures for Academic and Research Libraries.[27] The manual focuses primarily on the availability and accessibility of materials, but does not provide much guidance on the evaluation of areas such as reference and service availability. He also provides introductory information on statistics and blank forms for the library to use. F.W. Lancaster provides guidance for those who want to evaluate the operations of their libraries. His book, If You Want to Evaluate Your Library..., divides library services into two areas and provides performance measures for each.[28] He offers guidelines for the evaluation of document delivery systems and reference services. Lancaster maintains that his book is designed to measure inputs and outputs, and intangibles such as the effects of service on patrons, can be measured indirectly from these.

Nancy Van House, in her article, "Output Measures in Libraries," provides an overview of performance measures in libraries.[29] She focuses primarily on the measurement of outputs, which are the services that libraries provide. She also brings up important issues such as the lack of a one, single definition of library effectiveness. She raises the question of who's perspective of effectiveness should be taken, the librarian's or the user's. Other problematic issues are; the transitory nature of information needs, the lack of knowledge by librarians regarding measurement, sampling, and statistical methods, and the difficulties of administering user surveys.

There are beginning to be more studies and research published that examine library user satisfaction as the ultimate test of library effectiveness. Alvin M. Schrader reports on such a study in, "Performance Measures for Public Libraries: Refinements in Methodology and Reporting."[30] He used pre-existing methodology to measure the user satisfaction, focusing on the usage patterns of library materials and services by the patrons. Examination of the library through the eyes of its users is comparable to market research methods. The Marketing of Library and Information Services directly picks up on this theme.[31] It brings together library articles on marketing principles, marketing research and analysis, and marketing as public relations and promotion.

Thomas W. Shaughnessy's article, "Assessing Library Effectiveness," asserts that the assessment of quality should become central to libraries.[32] Whatever assessment technique is chosen, the client should be at the center. The library user's impressions of libraries should be "based less on buildings and facilities and more on the personalized service they receive there."[33] The entire staff needs to be focused on service quality, which requires continual self-assessment on their part. Albrecht and Zemke's book, Service America! Doing Business in the New Economy, provides much insight on planning for and achieving an institutional service strategy.[34] It is vital for libraries and their staff to remember the customer, for "our logic is not necessarily the same as the customer's logic."[35]

INSTRUMENTATION AND MEASUREMENT

The data for this research was collected from patrons by means of a self-administered questionnaire. Its purpose was to obtain a valid picture of service quality in the library, as perceived by the user. The study also attempted to explore the relationships between user satisfaction and the rank, major, and use frequency of the students. The questionnaire was pre-tested for reliability using the Cronbach Alpha analysis. The results were evaluated and the appropriate changes were made to the instrument. The second, revised questionnaire was then used for the data collection (see appendix 1).

The questionnaire was intended to provide information on the library's staff, evaluating their reference knowledge, availability, and friendliness. Two questions were asked regarding the library's hours, and patrons were also asked to respond to enquiries on the physical facilities. These included questions on the orderliness of the stacks, noise level, and adequacy of space. The students were asked about their desire for bibliographic instruction, their satisfaction with the current circulation period, and about the adequacy of the equipment in the library. The questionnaire contained several questions concerning the library's collection and the last question asked for an overall rating of the students' satisfaction with the service. This last question, which was unnumbered on the questionnaire, was given the number 15 for data analysis purposes.

Each question was followed by a five-point scale, with response categories ranging from strongly agree to strongly disagree. Data was also collected describing the users' class rank, their major area of study, and their frequency of library use. Space was left for the students to voice any additional comments or suggestions they might have.

DATA COLLECTION

Self-administered questionnaires were distributed to classes at the Columbus College of Art & Design for a period of two weeks in October of 1990. These classes were specifically chosen to produce a valid sample. The classes were chosen by the registrar of the college to be representative of the majors and class ranks of the students at the college. Permission to enter their classes and conduct this survey was then asked of the selected teachers. Evening students were excluded from this sample because they have different library privileges than the day students. The questionnaires were distributed to the students and collected during the classroom periods of those selected to participate in the survey. This method was chosen to insure a high rate of questionnaire completion and to try to include non-library users in the survey as well. 229 usable questionnaires were obtained and an equitable distribution between class ranks was a main goal in securing the sample (see table 1).

TABLE 1

SURVEY RESPONSES BY RANK

Rank	N	Percentage
Freshmen.....	57	25.2
Sophomores.....	51	22.6
Juniors.....	66	29.2
Seniors.....	49	21.7
None of the above...	3	1.3
Total N.....	226	

The responses by major varied more, with illustration and advertising design majors having the greatest percentage of survey responses. Retail advertising and fashion design made up the smallest percentage of responses, but this follows the fact that these are two of the smaller departments in the college (see table 2).

TABLE 2

SURVEY RESPONSES BY MAJOR

Major	N	Percentage
Fine Arts.....	34	15.2
Illustration.....	66	29.5
Photography.....	18	8.0
Industrial Design.....	31	13.8
Interior Design.....	15	6.7
Advertising Design.....	50	22.3
Retail Advertising.....	5	2.2
Fashion Design.....	5	2.2
Total N.....	224	

The survey responses analyzed according to frequency of library use were especially encouraging to the library staff. Almost 80% of those sampled use the library at least once a week, with half of these students using it more often than that (see table 3). Library use was defined very broadly in this survey. Students not only visit the library in order to study and do research, but they also use the library as a studio. Students often come to the library between classes to work on art projects. Library use was defined as the use of library resources, ranging from the use of equipment, the collection, the physical facilities, and the staff.

TABLE 3

SURVEY RESPONSES BY FREQUENCY OF LIBRARY USE

Frequency	N	Percentage
Daily.....	24	10.7
Twice a week.....	88	39.3
Once a week.....	66	29.5
Twice a month.....	26	11.6
Once a month.....	8	3.6
Once a semester.....	8	3.6
Never.....	4	1.8
Total N.....	224	

DATA ANALYSIS

Division of Responses by Percentage

The reports of this type of analysis (see table 4), show that 50.5% of the respondents felt that the library staff is knowledgeable enough to answer all types of questions.

TABLE 4

DIVISION OF RESPONSES BY PERCENTAGE

Question	N	Strongly Agree (%)	Agree (%)	Undecided (%)	Disagree (%)	Strongly Disagree (%)
1. Staff is knowledgeable.....	228	6.6	43.9	39.9	9.2	0.4
2. Staff is available.....	229	9.6	52.4	24.5	9.6	3.9
3. Staff is friendly.....	229	9.2	42.8	27.5	12.7	7.9
4. Does not need to be open on weekends.....	229	0.9	4.4	8.3	23.1	63.3
5. Hours are convenient.....	227	4.0	33.9	23.8	22.0	16.3
6. Library use courses should be offered..... ..	228	4.4	24.6	42.1	23.2	5.7
7. Noise level satisfactory.....	228	11.0	57.5	13.2	9.6	8.8
8. Not enough space.....	227	29.1	33.5	18.9	14.1	4.4
9. Books are out of order.....	229	17.0	24.9	40.2	14.8	3.1
10. Circulation period adequate.....	229	6.6	58.1	21.0	9.6	4.8
11. Copy machine is not adequate.....	227	14.1	17.6	24.7	37.0	6.6
12. Is a good selection of materials.....	226	5.3	37.2	35.0	14.6	8.0
13. Does not have needed periodicals.....	229	3.5	17.0	45.9	27.1	6.6
14. Good balance of materials.....	228	2.2	31.1	46.1	15.8	4.8
15. Am satisfied with the service.....	226	4.4	50.0	27.9	14.6	3.1

However, nearly 40% were undecided on this matter. This suggests that the librarians should perhaps engage in some public relations, letting the students know the expertise and skills they have to offer. This might also suggest that the library staff needs to appear approachable. However, in a related question, 62% of the students agreed or strongly agreed that the librarian usually is available to help them locate materials. 52% rated the library staff's friendliness positively, but that left another 50% who were either undecided or perceived that the staff is unfriendly. This is clearly a statistic to which attention should be paid. If half the library constituency feel that the staff is not friendly, consideration must be given to how this opinion can be changed.

Question 4 of the questionnaire produced the strongest response of any question asked. A full 86.4% disagreed and strongly disagreed with the statement that the library does not need to be open on the weekends. However, when asked in the next question if they think that the library's hours are convenient, the responses were much more spread out. 33.9% of the students even agreed that the hours are convenient. This seems to show that even though the students' opinions were divided regarding the convenience of the hours currently offered, they strongly feel that weekend hours are needed. The library is currently closed on the weekends due to a lack of staffing.

Where the question of weekend hours provoked a strong response, the question asking students if short courses in the use of library resources should be offered periodically provoked a very neutral

response. 42.1% of the students surveyed were undecided. Almost 24% of the students agreed with this statement and an almost equal percentage disagreed with it. There was no real opinion either way.

68.5% of the students agreed and strongly agreed that the noise level of the library is satisfactory. This question was included in the questionnaire because there had been numerous complaints about this made to the library staff in the past. Therefore, it is rather surprising that the satisfaction with the noise level was so high. Students often use the library as a workroom/studio for their art work, so there is often much discussion going on.

The library facilities at the Columbus College of Art & Design are small and the student at the college occupies more space when using the library than a typical student at another college would. The art students carry tools, supplies, portfolios, and other work into the library. It is not surprising that more than half (62.6%) responded that they agreed with the statement that there is not enough space for studying in the library.

40.2% were undecided on the matter of the books being out of order on the shelves. This shows that a good proportion of the students either do not know what the order should be, or do not look for books strictly by call number. It has been observed that a great deal of selection and circulation in this library results from browsing. However, 17% strongly agreed and 24.9% agreed with this statement that the books are often out of order on the shelves. When approximately 42% of the patrons sampled are concerned about book order, a problem clearly exists.

The patrons agreed for the most part (64.7%), that the circulation period of two weeks is adequate. Of those remaining, 21% were undecided on the matter. The greatest number of students were either undecided (24.7%), or disagreed (37%) with the statement that the copy machine is not adequate for their use. This statistic is questionable, especially when comparing it to the written comments received. The amount of written comments expressing discontent with the copy machine service available was very high. Perhaps the students thought they were disagreeing with the statement; the machine <u>is</u> adequate for my use.

The questions regarding the library's collection yielded more neutral responses. Although 42.5% agreed and strongly agreed that the library has a good selection of materials in their major area of study, 35% were undecided. Almost half (45.9%) were undecided when asked their opinion on whether or not the library carries the magazines and newspapers that they need. There were approximately 10% more who thought that the library does carry what they need than those who did not. Again, nearly half (46.1%) of those surveyed were undecided when asked if the library has a good balance between research and recreational materials. In this case however, one-third of the respondents did agree and strongly agree that there exists a good balance.

The last question asked the students to respond to the statement: Overall, I am satisfied with the service that I receive at the library. 50% agreed with the statement and 4.4% strongly agreed with it. To have 54% of those surveyed satisfied with the library service is a good start

and foundation for the library. However, 27.9% were undecided, and 17.7% disagreed and strongly disagreed with this statement. With almost half of the population surveyed not satisfied or undecided about the library service, many needs are not being met.

Mean Responses Per Question

The analysis of mean responses according to the students' class rank, major, and frequency of library use was undertaken to see if any significant differences appeared. As can be seen in the following three tables, variations between the mean answers in each grouping were found to be insignificant, for the most part. It can be seen in all three tables that responses rarely varied more than one point either way.

The mean responses by rank showed a few differences between the freshmen, sophomores, juniors, seniors, and none of the above (see table 5). It is interesting to note that as the students progress in school, the less favorably they view the staff's availability. The juniors were most undecided on the friendliness of the library staff. The students falling into the "none of the above" category are often part-time students who have more outside obligations than the traditional student. It makes sense that they disagree most with the statement: the library's hours are convenient. This same group also was the least agreeable with the statement that the circulation period is adequate. They obviously have a harder time trying to accommodate their schedules to the library's rather limited hours and its two-week circulation period. They were also the group that felt the strongest about the noise level in the library. The freshmen were found to be most undecided when asked

TABLE 5

MEAN RESPONSES BY CLASS RANK

Question	N	Freshmen	Sophomores	Juniors	Seniors	None of the Above
1. Staff is knowledgeable.....	228	2.4	2.5	2.7	2.4	2.0
2. Staff is available.....	229	2.3	2.5	2.5	2.6	2.0
3. Staff is friendly.....	229	2.4	2.7	3.0	2.6	1.7
4. Does not need to be open on weekends.....	229	4.4	4.6	4.4	4.3	4.0
5. Hours are convenient.....	227	3.1	3.1	3.2	3.1	3.7
6. Library use courses should be offered.....	228	3.0	3.0	3.1	2.9	3.0
7. Noise level satisfactory...	228	2.4	2.4	2.5	2.6	4.0
8. Not enough space.....	227	2.5	2.0	2.2	2.5	2.7
9. Books are out of order.....	229	3.0	2.5	2.3	2.7	2.3
10. Circulation period adequate.....	229	2.4	2.5	2.4	2.6	3.3
11. Copy machine is not adequate.....	227	3.1	3.5	3.0	2.7	3.3
12. Is a good selection of materials.....	226	2.7	2.7	2.9	3.0	2.7
13. Does not have needed periodicals.....	229	3.1	3.1	3.1	3.4	3.0
14. Good balance of materials.....	228	2.8	2.8	3.0	2.9	3.3
15. Am satisfied with the service.....	226	2.3	2.7	2.8	2.7	2.7

Note: Mean responses correspond to the following scale: 1 = strongly agree, 2 = agree, 3 = undecided, 4 = disagree, 5 = strongly disagree.

whether or not the books were in order on the shelves. This probably is a result of their unfamiliarity with the library or unfamiliarity with library classification schemes as a whole. This suggests that some bibliographic instruction might be useful for the freshmen. The freshmen were also found to agree most strongly that they are satisfied with the service they receive at the library.

The mean responses by major again showed no drastic variations in opinions. The interior design majors least felt that the library staff is friendly. They also felt that the noise level is less than satisfactory (see table 6). The retail advertising and fashion design majors seemed to be the most satisfied with the service they receive at the library. They both agreed more strongly than others that the library's hours are convenient. However, they both felt that the library needs to have more space for studying. The retail advertising majors seemed satisfied with the library's materials in their major area of study, but the photography and industrial design majors were much less satisfied in this regard. The retail advertising majors were also more satisfied than the rest with the serials collection and the balance between research and recreational materials.

The comparison of mean answers by degree of library use produced responses that were the least varied of all (see table 7). It is interesting to note that both the patrons who use the library daily and those who use it only once a semester feel that the staff is friendliest. There is a relatively large difference in the mean answers of those who use the library once a month and those who use it once a

TABLE 6

MEAN RESPONSES BY MAJOR

Question	N	Fine Arts	Illus-tration	Photo-graphy	Indus-trial Design	Interior Design	Advertis-ing Design	Retail Advertis-ing	Fashion Design
1. Staff is knowledgeable.....	228	2.5	2.5	2.8	2.4	2.6	2.6	2.0	2.6
2. Staff is available.....	229	2.4	2.4	2.4	2.6	3.0	2.5	2.4	2.4
3. Staff is friendly.....	229	2.7	2.5	2.7	2.6	3.3	2.8	2.4	3.0
4. Does not need to be open on weekends.....	229	4.4	4.4	4.3	4.7	4.5	4.4	4.4	4.2
5. Hours are convenient.....	227	3.2	3.1	3.5	3.5	3.1	3.0	2.2	2.6
6. Library use courses should be offered.....	228	2.9	3.0	2.6	3.1	3.1	3.2	3.2	3.6
7. Noise level satisfactory...	228	2.5	2.4	2.2	2.4	3.3	2.4	2.8	2.2
8. Not enough space.....	227	2.4	2.1	2.7	2.4	2.1	2.5	1.6	1.8
9. Books are out of order.....	229	2.6	2.7	2.7	2.9	2.3	2.4	2.8	2.4
10. Circulation period adequate.....	229	2.7	2.4	2.8	2.4	2.3	2.4	2.4	2.4
11. Copy machine is not adequate.....	227	3.2	3.3	3.2	2.5	2.7	3.0	3.0	2.8
12. Is a good selection of materials.....	226	2.6	2.7	3.4	3.4	2.9	2.7	2.2	2.8
13. Does not have needed periodicals.....	229	3.3	3.1	2.9	3.2	3.3	3.2	4.0	3.2
14. Good balance of materials.....	228	3.0	2.8	3.0	3.2	2.8	2.9	2.0	2.4
15. Am satisfied with the service.....	226	2.6	2.6	2.8	2.8	3.1	2.5	2.0	2.0

Note: Mean responses correspond to the following scale: 1 = strongly agree, 2 = agree, 3 = undecided, 4 = disagree, 5 = strongly disagree.

semester regarding the perceived friendliness of the staff. It would be worthwhile to investigate this discrepancy in opinion between two groups whose library use is not that different. Similar to this is the question of space in the library. Those who use the library daily as well as those who use it only once a month most strongly felt that there is a shortage of space. Those who use it every day experience the tight quarters continually, and perhaps this shortage of space is why the other group only visits once a month.

The group of patrons who use the library only once a semester are the most undecided on whether or not the books are out of order on the shelves, for they are the most unfamiliar with the library, besides those who never visit it. Those who use the library only once a month are the least satisfied with the library's selection of materials in their major area of studies. Perhaps this is what keeps them away. The group of students who use the library once a month show the least satisfaction with the service they receive. Once again, their satisfaction level seems to be lower than those who use it even less than they do. An interesting phenomenon in this table was the responses given by those who never use the library. Instead of being undecided on all questions, some variations in responses occurred. They were either responding to what their fellow students say about the library, or have actually used the library themselves.

TABLE 7

MEAN RESPONSES BY LIBRARY USE

Question	N	Daily	Twice a Week	Once a Week	Twice a Month	Once a Month	Once a Semester	Never
1. Staff is knowledgeable.....	228	2.7	2.5	2.4	2.6	3.0	2.8	3.0
2. Staff is available.....	229	2.8	2.4	2.3	2.7	2.9	2.3	3.0
3. Staff is friendly.....	229	2.6	2.6	2.7	2.8	3.1	2.5	2.8
4. Does not need to be open on weekends.....	229	4.4	4.5	4.4	4.4	4.9	4.4	3.8
5. Hours are convenient.....	227	3.2	3.1	3.0	3.2	3.4	3.1	3.0
6. Library use courses should be offered.....	228	2.9	3.1	2.9	3.0	3.0	3.3	2.8
7. Noise level satisfactory....	228	2.6	2.4	2.3	2.7	3.0	2.6	2.8
8. Not enough space.....	227	1.8	2.2	2.7	2.3	1.9	2.3	2.8
9. Books are out of order.....	229	2.4	2.6	2.6	2.7	2.4	3.1	2.8
10. Circulation period adequate.....	229	2.2	2.4	2.6	2.3	2.8	2.5	2.8
11. Copy machine is not adequate.....	227	3.3	3.1	2.8	3.3	3.1	2.8	2.8
12. Is a good selection of materials.....	226	2.5	3.0	2.7	2.9	3.4	2.5	3.0
13. Does not have needed periodicals.....	229	3.1	3.2	3.2	2.8	3.0	3.4	3.0
14. Good balance of materials.....	228	2.8	2.9	2.9	3.0	3.3	2.8	2.8
15. Am satisfied with the service.....	226	2.5	2.6	2.4	3.0	3.5	2.5	3.0

Note: Mean responses correspond to the following scale: 1 = strongly agree, 2 = agree, 3 = undecided, 4 = disagree, 5 = strongly disagree.

DISCUSSION

Respondents were also asked to add any comments or suggestions to their questionnaires. While these were not statistically analyzed, they allowed students to comment on areas not covered on the questionnaire or respond to other questions they felt particularly strongly about. Several students expressed a desire for a computerized library system, for the library still uses the card catalog. There were also many comments on the library's hours. The students wrote that they wanted longer daily hours and weekend hours.

The comments regarding the staff were especially candid. The noise level of the staff's conversations distracted students and the friendliness of the staff was called into question. Many students even went so far as to pick out individual staff members they feel are particularly rude and short-tempered.

As mentioned before, many students requested more copy machines for the library. The addition of color laser copiers was also a popular request. The greatest number of comments addressed the physical space of the library. They said it is disorganized and too noisy. Books are hard to find on the shelves and the staff is often not available and unwilling to help locate them. Many said that the library is too small, too crowded, and too cramped. There were also several comments about the cleanliness of the library, one student calling it a pigsty.

The main thrust of the comments given about the collection were that

more up-to-date books are desired. The industrial design and photography sections of the collection were specifically pointed out as being deficient. Students also felt that there are too many non-circulating books in the library, more books should be allowed to leave the library. This is a problem common to art libraries in general. Since art books are so expensive and often go out of print so quickly, they are often kept for library use only.

The analysis of the data (not including the written comments), told the staff at the Packard Library at the Columbus College of Art & Design a few things about the students' perception of service quality. One opinion that strongly stood out was that the students felt the library should be open more hours, specifically on the weekends. They stated that there is not enough space for studying in the library, but even though space is limited, the noise level is satisfactory. The students also generally agreed that the library staff is knowledgeable and available. They felt that the circulation period is adequate, and a little over half of the sample stated that they were satisfied with the service overall. There was a clustering of responses, which can be seen in the overall mean responses per question (see table 8). Most answers hovered around the mid-point of the scale. However, the written comments and suggestions added emphasis and clarification to some of the questions that produced neutral responses.

TABLE 8

OVERALL MEAN RESPONSE PER QUESTION

Question	N	Mean
1. Staff is knowledgeable.....	228	2.5
2. Staff is available.....	229	2.5
3. Staff is friendly.....	229	2.7
4. Does not need to be open on weekends.....	229	4.4
5. Hours are convenient.....	227	3.1
6. Library use courses should be offered.....	228	3.0
7. Noise level satisfactory....	228	2.5
8. Not enough space.....	227	2.3
9. Books are out of order.....	229	2.6
10. Circulation period adequate.....	229	2.5
11. Copy machine is not adequate.....	227	3.0
12. Is a good selection of materials.....	226	2.8
13. Does not have needed periodicals.....	229	3.2
14. Good balance of materials.....	228	2.9
15. Am satisfied with the service	226	2.6

The comparison of responses between students grouped according to their class rank, major, and degree of library use did not supply any significant insights. There were slight variations in the answers, but no one particular set of students seemed to have marked differences in their perceptions of the service quality. This survey was conducted in October. It might have been better to conduct it in the spring in order to give freshmen more time to become acquainted with the library.

The evaluation of this library was affected by the many ways in which it is used. Of course it is used as a traditional library is used, for studying and research. But it is also used as a type of studio for the students. They come to the library to work on their art because of the space the library has to offer. The library is also very centrally located. These untraditional uses might affect the evaluation of this library because these students have needs and expectations that lie outside the norm. As mentioned, they need more space than the traditional library user, they require more sophisticated equipment for viewing and producing their work, and their information needs are of a different nature than those of a traditional college student. Results from this survey, while certainly valuable, are quite unique and specific to this particular library.

People answer surveys on user satisfaction differently, for each individual has unique goals and expectations. There are many variables that affect user satisfaction, and "passing through the cycle of service, the customer sees the service in terms of a total experience, not an isolated activity or set of activities."[36] This is why it is important to use the patron as the main source of data, not the library's tallies, records, statistics, numbers, and logs. "The quality of the service in academic libraries is not a simple reflection of the units produced. It is defined in terms of the needs of the library user, and the skills of the library staff in assessing and meeting those needs."[37] This particular study did not ask questions regarding the importance, style, and purpose of the library use by the patron. These types of questions are also important and should be explored by future

researchers. Any additional insight into the enigmatic nature of user satisfaction would be useful.

The study of service quality and user satisfaction has many benefits for both the library and its patrons. It promotes staff involvement and discussion, encourages the development of specific standards within the library, and highlights the major public service objectives within the library. It requires the definition of ambiguous terms like "service quality" and also provides the basis for more objective evaluation of individual performance.[38] Knowledge of user satisfaction and service quality perception provides information that can be used to help solve current problems and plan for the future. The systematic analysis of the patrons' needs is beneficial for public relations, library planning, and effective administration.

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APPENDIX 1

CCAD PACKARD LIBRARY -- STUDENT QUESTIONNAIRE

The following questionnaire has been developed to assess the quality of service in the library. Your opinions will help us make changes and improvements where they are needed. Tell us what you think of the service by answering the following questions, using the scale given below.

1 = strongly agree
2 = agree
3 = undecided
4 = disagree
5 = strongly disagree

Please circle the correct answer.

	strongly agree	agree	undecided	disagree	strongly disagree
1) The library staff is knowledgeable enough to answer all types of questions.	1	2	3	4	5
2) The staff is usually available to help me locate materials.	1	2	3	4	5
3) The library staff is friendly.	1	2	3	4	5
4) The library does not need to be open on the weekends.	1	2	3	4	5
5) The library's hours are convenient.	1	2	3	4	5
6) Short courses in the use of library resources should be offered periodically.	1	2	3	4	5
7) The noise level of the library is satisfactory.	1	2	3	4	5
8) There is not enough space for studying in the library.	1	2	3	4	5
9) The books are often out of order on the shelves.	1	2	3	4	5
10) The circulation period of two weeks for materials is adequate.	1	2	3	4	5
11) The copy machine is not adequate for my use.	1	2	3	4	5
12) The library has a good selection of materials in my major area of study.	1	2	3	4	5
13) The library does not carry the magazines and newspapers that I need.	1	2	3	4	5
14) The library has a good balance between research and recreational materials.	1	2	3	4	5
Overall, I am satisfied with the service that I receive at the library.	1	2	3	4	5

Other comments or suggestions:

Please take a little more time and tell us about yourself. The information you give us will help us to improve the service you will receive in the library.

1) What is your class rank? (Please check one)

_____ Freshman
_____ Sophomore
_____ Junior
_____ Senior
_____ None of the above

2) What is your major area of study? (Please check one)

_____ Fine Arts
_____ Illustration
_____ Photography
_____ Industrial Design
_____ Interior Design
_____ Advertising Design
_____ Retail Advertising
_____ Fashion Design

3) How often do you use the library? (Please check one)

_____ Daily
_____ Twice a week
_____ Once a week
_____ Twice a month
_____ Once a month
_____ Once a semester
_____ Never

Thank you for your participation!